

REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-6 are presently pending in this case. Claims 1 and 4 are allowed; and Claims 2-3 and 5-6 are amended by the present amendment. Support for the amended Claims can be found in the original specification, claims and drawings.<sup>1</sup> Thus, no new matter is presented.

In the outstanding Office Action, Claims 2-3 and 5-6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Na (U.S. Patent No. 6,112,069, hereinafter “Na”); and Claims 1 and 4 are allowed.

Applicant acknowledges with appreciation the indication of allowed Claims 1 and 4.

Claims 2-3 and 5-6 were rejected under 35 U.S.C. § 103(a) as unpatentable over Na. Applicants respectfully submit that amended Claims 2-3 and 5-6 state novel features clearly not taught or rendered obvious by the references of record.

Amended Claim 1 relates to a two-way radio communication system for communication between first and second radio stations. The first and second radio base station are each equipped with a signal modulator for generating a modulated signal in an intermediate frequency (IF) band. The modulated signal is input to a modulated transmission signal generator that produces a modulated radio transmission signal by using a local oscillation (LO) signal to up-convert the modulated signal to a radio frequency band. A transmitter then transmits the LO signal used by the modulated transmission signal generator superposed on the modulated radio transmission signal as a radio signal. A receiver receives the signal and down-converts the received signal to a modulated IF band by generating a

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<sup>1</sup> Specification at ¶ [0016].

multiplication component of a modulated radio signal component and LO signal component received from the other radio station.

By implementing the system described by amended Claim 2, only one of the radio stations requires a local oscillator.

Specifically, amended Claim 2 recites, *inter alia*, a two-way radio system, comprising:

“...a transmitter that transmits the local oscillation signal...together with the modulated radio transmission signal as a radio signal, wherein the local oscillation signal is linearly superposed on the modulated transmission signal.”

Amended independent Claims 3 and 5-6 recite similar features.

Turning to the applied reference, Na describes a radio receiver and method for suppressing attenuation properties of a low frequency signal. Specifically, in Na's system, an oscillating means generates a first LO frequency signal by a reference oscillating signal applied thereto.<sup>2</sup> A modulator then **modulates** the first LO signal by an aural signal transmitted from the transmitter and supplies the modulated first LO frequency signal to the receiver and the transmitter. See Na at col. 6, lines 12-18, for example.

As discussed above, amended Claim 2 recites the feature of transmitting the LO signal together with the modulated radio transmission signal wherein “***the local oscillator signal is linearly superposed on the modulated transmission signal***” (emphasis added).

However, as discussed above, col. 6, lines 12-18 of Na describes a first local oscillating means for generating a first local oscillating frequency signal by a reference oscillating signal applied thereto, ***modulating the first local oscillating frequency signal by an aural signal*** transmitted from the transmitter, and supplying the modulated first local oscillating frequency signal to the receiver and the transmitter. It is clear from Na's description that the LO frequency is modulated with an aural signal. As is well known in the

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<sup>2</sup> Na at abstract.

art, a signal obtained by *modulating* a signal A with a signal B yields the *product* of signals A and B.

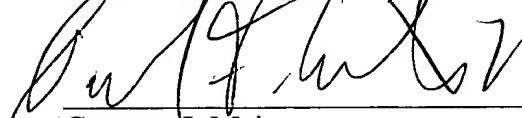
As discussed above, each of amended Claims 2-3 and 5-6 now recite that the LO signal is *superposed* on the modulated transmission signal and transmitted. Clearly, “superposing” is not “modulating” and the result of the claimed superposing is that the *sum* of the modulated transmission signal and the LO signal are transmitted from the transmitting radio station to the receiving radio station, not the product of these signals. Accordingly, as Na describes that the LO signal is *modulated* by an aural signal, Na fails to teach or suggest the above-mentioned features recites in amended independent Claims 2-3 and 5-6.

Accordingly, applicants respectfully submit that amended Claims 2-3 and 5-6 patentably define over Na and the outstanding rejection of these claims under 35 U.S.C. § 103 be withdrawn.

Consequently, in view of the present amendment, an in light of the forgoing comments, it is respectfully submitted that the invention defined by Claims 2-3 and 5-6 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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